CLAIMS:

1. An appliance (1) for converting DAB signals into FM signals and for transmitting the FM signals to an FM receiver (2), said appliance comprising:

- DAB reception means (3), which DAB reception means (3) are equipped with an antenna input (4) and, at an output (10), emit an audio signal derived from a received DAB signal, and
- FM modulator means (13) for generating an FM signal modulated with the audio signal, and
- transmission means for transmitting the FM signal to the FM receiver (2), and control means (21),
- wherein the transmission means are equipped with wired connection means (16), to which wired connection means (16) frequency detection means (20) are connected, which frequency detection means (20) are connected to the control means (21) and arranged to detect the high frequency set in the FM receiver (2), and to generate a result signal representing the detection result and deliver it to the control means (21), and
- wherein the control means (21) are connected to a channel-setting input (29) of the DAB reception means (3), and
- wherein the DAB reception means (3) are designed to be tuned on the basis of the result signal delivered to their channel-setting input (29).

2. An appliance as claimed in claim 1, wherein memory means (28) for storing information concerning the mutual correspondence of DAB channels and FM channels are assigned to the control means (21).

3. An appliance as claimed in claim 1, wherein the frequency detection means (20) are connected to the wired connection means (16) via filter means (19).

4. An appliance as claimed in claim 1, wherein the frequency detection means (20) are equipped with an auxiliary FM receiver (20') with an automatic transmitter search.

5. An appliance as claimed in claim 4, wherein the auxiliary FM receiver (20') is rated for a reception frequency range from 98.20 MHz to 118.70 MHz.

6. An appliance as claimed in claim 4, wherein the auxiliary FM receiver (20') is rated for a reception frequency range from 63.30 MHz to 79.30 MHz.

7. An appliance as claimed in claim 4, wherein the frequency detection means (20) are arranged, together with the control means (21), to recognize high-frequency change patterns in order that manual or automatic transmitter scanning operations undertaken at the FM receiver (2) can be recognized.

8. An appliance as claimed in claim 7, wherein a high-frequency deviation-acceptance window is defined in the frequency detection means (20).

9. An appliance as claimed in claim 1, wherein the wired connection means (16) are connected to the antenna input (4) of the DAB reception means (3) via a line (35) containing switching means (36).

10. An appliance as claimed in claim 9, wherein the switching means (36) are equipped with a control input (36') connected to the control means (21).

11. An appliance as claimed in claim 1, wherein inputting means (32) are assigned to the control means (21).

12. An appliance as claimed in claim 11, wherein the inputting means (32) comprise remote-control means (33).

13. An appliance as claimed in claim 11, wherein the inputting means (32) comprise a connection line (40) to control means of the FM receiver (2).

14. An appliance as claimed in claim 3, wherein the analog audio signal is also applied directly to output sockets (43).

15. An appliance as claimed in claim 1, wherein the FM modulator means (13) are

arranged to process supplementary information during the FM modulation.

16. An appliance as claimed in claim 15, wherein the FM modulator means (13) are connected to the control means (21) in order to supply supplementary information.

5

17. An appliance as claimed in claim 15, wherein the FM modulator means (13) are arranged to process the supplementary information by modulation of a carrier signal in accordance with the RDS method.